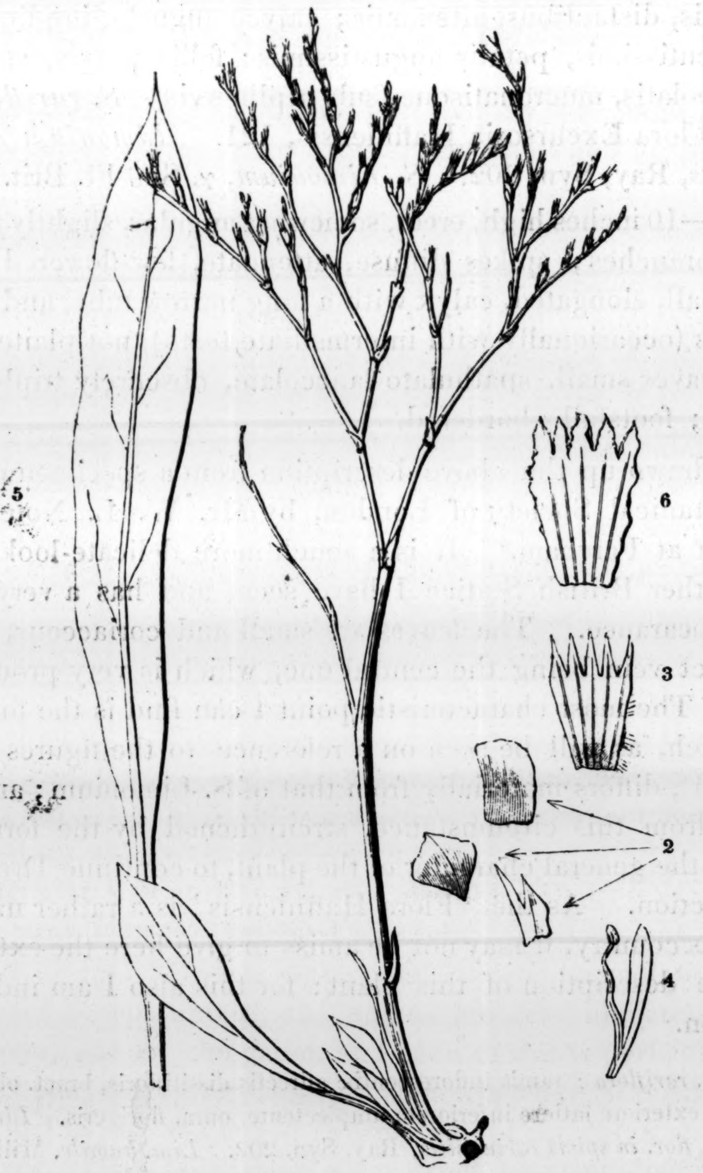
THE PHYTOLOGIST.

No. XXIV. | MAY, MDCCCXLIII. | PRICE 1s.

ART. CXXXVI.—*Description of a Species and Variety of the Genus Statice, known to British Botanists as the Limonium Anglicum minus of Ray's Synopsis.* By ARTHUR HENFREY, Esq., A.L.S., M. Mic. Soc., Curator to the Botanical Society of London.



1. *Statice rariflora*, Drejer, half the natural size. 2. Scales of the involucre, magnified. 3. Calyx, ditto. 4. Petal with stamen, ditto. 5. Leaf of *Statice Limonium*, β. 6. Calyx, magnified. The figures exhibit the relative sizes of the calyces, being taken from plants of equal size.

The following descriptions were read before the Botanical Society of London. At that time I imagined the first of these plants to be undescribed; but by the kindness of Mr. H. C. Watson, who suggested the reference, I have been able to identify it with Drejer's description of Statice rariflora.

STATICE *rariflora*, Drejer.

Caule erecto, angulare, ramoso, spicis diffusis, elongatis; floribus paucis, distantibus, attenuatis; calyce angusto, implicato, lobis 5, acutissimis, petalis angustissimis; foliis parvis, spathulato-lanceolatis, mucronatisque (sub-triplinervis). *S. rariflora*, Drejer, Flora Excursoria Haffniensis, 121. *Limonium Anglicum minus*, Ray, Syn. 202. *S. Limonium*, *γ*. Sm. Fl. Brit. i. 341.

Scape 8—10 inches high, erect, somewhat angular, slightly furrowed, with few branches; spikes diffuse, attenuate, few-flowered; flowers distant, small, elongated, calyx with a long narrow tube, and five very acute lobes (occasionally with intermediate teeth), not plaited, petals narrow; leaves small, spathulato-lanceolate, obscurely triple-nerved, mucronate; footstalks bordered.

I have drawn up the above description from a specimen presented to the Botanical Society of London, by Mr. W. L. Notcutt, who gathered it at Fareham.* It is a much more delicate-looking plant than any other British Statice I have seen, and has a very peculiar starved appearance. The leaves are small and coriaceous, the only very distinct vein being the central one, which is very prominent at the back. The most characteristic point I can find is the form of the calyx, which, as will be seen on a reference to the figures (3 and 6 at page 561), differs materially from that of S. Limonium; and I have ventured, from this circumstance, strengthened by the form of the leaves and the general character of the plant, to continue Drejer's specific distinction. As the 'Flora Haffniensis' is a rather uncommon book in this country, it may not be amiss to give here the extract containing the description of this plant: for this also I am indebted to Mr. Watson.

"349. *St. rariflora :* ramis inflorescentiæ adrectis dissitifloris, bract. oblique truncatis muticis exteriore latiore inferiorem amplectente, omn. florigeris. *Limonium anglicum minus, flor. in spicis rarius sitis*, Ray, Syn. 202. *Lim. humile*, Mill Ed. germ.

---

* See Mr. Notcutt's notes, Phytol. 429 and 492.—*Ed.*

"Omni parte tenuior, minus ramosa, in ramis exterior. fl. unilaterales solitarii interdum gemini, in interioribus in axi flexuosæ distinctius alterni. Fol. juniora lanceol. in mucronem attenuata, adultiora obovato-spathulata mucrone (elongato recto v. brevissime curvato) sub apice emergente. Panic. deflorata ob bract. coloratas max. membranac. fusco-variegata. Huc St. Lim. Valensienes, Fr. Mant. p. 10 (ex specim. ad J. Agardh datis) quæ sola magnitudine a nostra differt. 7—8. ♃. In littoribus.—P. 121.

Mr. Notcutt has been good enough to furnish me with the following particulars respecting the habitat, which would tend to disprove the idea of its being a starved specimen of S. Limonium. "Found in salt marshes on both sides of the town," (Fareham). "On the side between Fareham and Portchester the common form of S. Limonium grows in profusion, but I could not perceive any specimens which presented any intermediate grade between my plant and it, though they both grow near each other."

STATICE *Limonium*, Linn., var. β. *longifolia*.

Spicis elongatis, floribus minus confertis; foliis lanceolatis, angustis, acuminatisque, submucronatis. *Limonium Anglicum minus*, Ray, Syn. 202. *Statice Limonium* γ. Sm. Fl. Brit. i. 341.

Spikes elongated, flowers more distant, leaves lanceolate, narrow, sometimes linear-lanceolate (young leaves occasionally resembling the normal form in S. Limonium), generally with long bordered footstalks and a weak mucro, formed by the cartilaginous margins of the leaves.

This description is taken from a number of specimens in the herbarium of the Botanical Society of London, from two localities in Scotland; one being St. Mary's Isle (the specimens are from the Botanical Society of Edinburgh); and the other Garlieston, Wigtonshire, (the specimens collected by Professor Balfour and communicated by Mr. Watson).

The calyx of this variety exactly resembles that of Statice Limonium, α.; and I have examined a number of specimens presenting every form of leaf between elliptic and linear-lanceolate, but very few approach to spathulate; the spikes are very numerous, bearing many flowers, but are elongated, and each flower is perfectly distinct. On this account the variety appears somewhat like S. rariflora, but is distinguished by the shape and relative size of the calyx and the form of the leaves. The whole plant, when dried, has a reddish brown tint.

London, March 25, 1843. ARTHUR HENFREY.

ART. CXXXVII. — *Sketch of Botanical Rambles in the Vicinity of Bristol.* By LEO. H. GRINDON, Esq.

THE sketches of botanical rambles which have occasionally appeared in the pleasant pages of 'The Phytologist,' embolden me to offer you the following notes of two or three excursions made last summer in the vicinity of Bristol, a part of our island well known to be remarkably rich in rare and beautiful plants.

The lovely morning of July 3rd, 1842, found me approaching my native city by the Gloucester road; and although the luxuriant and picturesque scenery upon either side afforded of itself sufficient delight and employment for the eye, I found time to remark profusion of Galium Mollugo, Pastinaca sativa, Malva sylvestris and Melilotus officinalis by the way-sides, while the hedges wore a thick mantle of our elegant southern climber, Clematis Vitalba. Here and there was a field literally purple with the bloom of the cultivated teasel, Dipsacus Fullonum.

Early in the forenoon of the following day (Monday) I rambled away towards Horfield. In the suburb of the town was abundance of Mercurialis annua (a very common weed), Diplotaxis muralis, Coronopus Ruellii, Plantago media and Convolvulus arvensis; the hedges being formed chiefly of Rubus fruticosus and Cornus sanguinea. A little further in the country Centaurea Jacea, Agrimonia Eupatoria, Hypericum hirsutum and Hordeum pratense became plentiful. The hedges were here completely enveloped in luxuriant Tamus communis and Bryonia dioica, occasionally relieved by a mass of wild roses, (R. canina and systyla). Viburnum Lantana and Opulus formed a considerable portion of many of the fences, as we left the smoke of the town behind us, and these, together with the Cornus, were in green fruit. At Ashley was plenty of Rhamnus catharticus in the hedges, likewise in green fruit. Asplenium Ruta-muraria was common upon the old walls, and Hordeum murinum by the road-sides. On Brandon hill, in the afternoon of this day, I noticed Plantago Coronopus, β. *nanus*, in fruit, but was too late for Trifolium subterraneum, which likewise abounds there. The evening was devoted to a walk to Redland: on the walls near the green, Hieracium murorum and Linaria Cymbalaria were blooming in great luxuriance; Ceterach officinarum was also in perfection. I visited the Lamium longiflorum* habitat, but, as anticipated, found very little remaining in flower. This is a most beautiful plant, perfectly distinct from L. album, and from all the cultivated states of L. maculatum I have ever seen. It occurs with both pink and white flowers.

---

* L. album, β. Hooker, Br. Fl. ed. 4; L. maculatum, β. *lævigatum*, Ed. Cat.?

The afternoon of Tuesday the 5th found me again at Redland, whither I went for the purpose of collecting Bromus erectus, which is the principal grass in many meadows both here and at Horfield: but the scythe had swept all away. To make amends, and not go home empty handed, I pursued my walk until my vasculum was filled with Acer campestre in fruit, Poa compressa, Festuca myurus and Arenaria serpyllifolia.

On Wednesday, July 6, we made an excursion to Clevedon, a lovely and highly picturesque watering place, twelve miles S.W. of Bristol. Our road lay first through Ashton, where, on the old shaded wall ascending the hill towards Failand, six species of ferns at once presented themselves;—Ceterach officinarum, Asplenium Adiantum-nigrum, A. Trichomanes, A. Ruta-muraria, Scolopendrium vulgare and Polypodium vulgare: Lastræa Filix-mas and Pteris Aquilina grow upon the bank above, only a few feet distant. It was upon this identical wall that, ten years ago, I first gathered them; and although the interest then excited by their novelty could not be renewed to me, their original beauty was still present, and filled my mind with a thousand pleasant memories.

Further up the hill, Cnicus acaulis β. *caulescens* was growing among the gravel by the road-side. Thenceforward, until we approached Tickenham, nothing remarkable presented itself, that is, nothing of *botanical* interest, a circumstance which none could regret, when compensated for by so glorious a prospect as that here enjoyed. On descending the hill to the village of Tickenham, I found Linum angustifolium in flower and fruit, Phleum arenarium, Verbena officinalis, and Salvia verbenaca in fruit; while the high banks, even down to the very carriage-way, were adorned with a profusion of flowers such as I have never beheld, except in that one favoured spot. Papaver Rhœas, Cichorium Intybus, Galium verum, Malva moschata, M. sylvestris, wild roses, and a multitude of others no less showy, blended their bright hues beneath the unclouded sun more beautifully than pen can describe. Thence, all the way to Clevedon, the old walls and dry hedge-banks were clothed with an infinite quantity of Ceterach officinarum and Cotyledon Umbilicus; the handsome branched variety of the latter being equally abundant with the ordinary simple-stemmed state of the plant. Here and there in the hedges Campanula Trachelium showed itself; and occasionally, on walls, Sedum acre, S.

dasyphyllum, S. reflexum and Valeriana rubra. Near the Bristol Hotel was Torilis nodosa, very large.

We reached the shore of the Bristol Channel about mid-day. For a considerable distance the coast is here very precipitous and romantic, being formed of black, uncouth masses of rock, which appear to have fallen into their present position through the undermining influence of the sea. Inland the hills are steep, and, on their seaward slopes, comparatively barren, affording little besides pasturage for sheep. Filago germanica was, however, abundant, and in a little natural shrubbery of furze and brambles, I found Senecio sylvaticus and Calamagrostis Epigejos. The path winds along the extreme edge of the cliffs, forming, as it were, the line of demarcation between earth and the oceanic territory. Extending from the path down to high-water mark, except where interrupted by the rocks, is a steep grassy bank, abounding with beautiful flowers. Here I gathered Iris fœtidissima, Orchis pyramidalis in profusion, Orobanche minor, Euphorbia amygdaloides in fruit, Chlora perfoliata in profusion, Silene maritima, Festuca elatior, Scolopendrium vulgare, Daucus Carota, and many others. The vegetation by the sides of the path consists, in a great measure, of rather stunted Anthyllis Vulneraria. Near Walton, the rocks are less rugged, and allow of walking upon and between them. Here it was that in a low curious cave I met with Asplenium marinum, being the first time I had ever seen living plants. Some of the finest specimens were growing many yards from the entrance of the cave, where little light could enter, and so shut in by the sloping roof, that I had to creep till I was almost prostrate before they were accessible. In the crevices of the rocks was abundance of Thrincia hirta, and of a curious and striking variety of Plantago Coronopus, having succulent, densely hairy leaves, and exceedingly numerous flower-scapes. Further on, towards Portishead, Hypericum Androsæmum was in bloom, still retaining the ripe fruit of last year. A few diminutive specimens of Samolus Valerandi were visible in a little cave; and by the side of a fresh-water spring, which bubbles forth from amid the bosom of the rocks, Schœnus nigricans, brown and muddy from the tide washing over it. After collecting these, together with some shells and specimens of the different Fuci, with which the rocks are thickly tapestried, we returned to Bristol; and though the *botanical* value of the day's gatherings was not of the very first order, the delightful influences and associations under which they were collected have given them a deep and unfading interest.

During the 7th and 8th of July torrents of rain prevented all botanizing. Saturday the 9th was little better, but we then lost all patience, defied the weather, and sallied forth for the purpose of exploring Leigh woods. On the banks of the Avon, near Rownham, Trifolium fragiferum was in flower and fruit abundantly. We likewise met with Cochlearia anglica, Plantago maritima, Scirpus maritimus, Apium graveolens, &c. It was desperately wet in the woods, and after a succession of shower-baths from above, and drenchings from around and below, we were glad to retreat, in possession, however, of luxuriantly beautiful Cystopteris fragilis, Polypodium vulgare (eighteen inches long), Asplenium Trichomanes, Quercus sessiliflora, Pyrus Aria in green fruit, Tilia parvifolia, Acer campestre in green fruit, &c.

Tuesday the 12th was brilliantly fine, and being the last day of my stay at Bristol, it was spent in part upon St. Vincent's Rocks; but the fatigue of a boisterous voyage to South Wales the previous day had quite unnerved me, and I was only tempted to summon up my remaining strength by the prospect of obtaining Orobanche barbata, Veronica hybrida, Rubia peregrina, Centaurea Scabiosa, Petroselinum sativum, Bromus diandrus, &c.; with regard to all which, and many others of no less interest, I perfectly succeeded. And thus ended my week's botanizing at Bristol. LEO. H. GRINDON.

Manchester, March 13, 1843.

ART. CXXXVIII.—*Plants observed in the neighbourhood of Ludlow, Shropshire.* By FREDERICK WESTCOTT, Esq., A.L.S., &c.

Spring St., Edgbaston, December 3, 1842.

SIR,

I SEND you an enumeration of plants which I gathered or observed during a short stay at Ludlow in October last. I regret that I was too late for the grasses, Carices and Orchideæ, and had no means of ascertaining the Fungi, which appear to be numerous: all these deficiencies I hope to supply next summer, when it is probable I may revisit the neighbourhood.

I send the list, not because it will be found to contain any very remarkable plants, but in the hope that persons in the neighbourhood may be induced to pay more attention to the Botany of their district; for I have no doubt that many interesting discoveries may be made there, especially among the mosses, the lichens and the Fungi. The Clee Hills, more particularly, would be found a rich locality.

Hoping that some one on the spot will follow up this subject in good earnest, and communicate the result to the interesting pages of your journal,
I am, Sir,
Yours very truly,
FRED. WESTCOTT.

To the Editor of 'The Phytologist.'

Ranunculus acris, bulbosus, and repens, banks of the castle walk
—— fluviatilis, abundant in the Teme
—— hederaceus
Caltha palustris
Trollius europæus
Aquilegia vulgaris, ruins of Richard's castle
Berberis vulgaris, Ludford
Diplotaxis tenuifolia and Cheiranthus Cheiri, rocks about the castle and banks of the castle-walk
Cardamine hirsuta
Hesperis inodora, ruins within the castle
Sinapis nigra, banks of the castle walk
Erysimum Alliaria
Montia fontana
Cerastium vulgatum and arvense
Arenaria serpyllifolia, walls about the cas.
Sagina procumbens
Stellaria media, uliginosa and holostea
Lychnis dioica and Flos-cuculi
Dianthus plumarius, on the walls of the castle, on the right hand side on entering the door, by the keep.
Malva sylvestris and moschata
Geranium robertianum, molle, dissectum and lucidum. The last is abundant on the walls of the castle, where its shining leaves have a very pleasing appearance.
Epilobium montanum and palustre
Circæa Lutetiana, banks of the Teme
Dipsacus sylvestris, hedge near Ludlow
Viburnum Lantana
Hedera Helix and Sambucus nigra, about the castle
Lonicera Periclymenum, Whitcliff coppice
Cornus sanguinea
Anthriscus sylvestris
Bunium flexuosum
Pimpinella Saxifraga
Chærophyllum temulum
Conium maculatum
Ægopodium Podagraria
Plantago major, media and lanceolata
Acer campestre
Hypericum pulchrum, humifusum, and hirsutum, banks of castle walk
—— perforatum, *β. angustifolium*, walls of Ludlow castle; rocks of Whitcliffe; hedge-bank near the Angel bank, Clee-hills, (Phytol. 427 and 461).
Geum urbanum
Agrimonia Eupatoria
Potentilla Fragariastrum, reptans and anserina
Prunus spinosa
Fragaria vesca, ruins of the castle and Whitcliffe coppice
Rosa tomentosa, canina, and canina *β. sarmentacea*
Rubus fruticosus, cæsius, Idæus, rhamnifolius & carpinifolius, Whitcliffe coppice and hedges
Ribes Grossularia
Viola canina, odorata, palustris and lutea. The last grows in great abundance in moist places on the top of the Clee hills
Oxalis Acetosella
Galium cruciatum, saxatile & uliginosum
Linum catharticum, Whitcliffe
Cotyledon Umbilicus, Ludford
Sedum reflexum and dasyphyllum, rocks of castle walk
—— acre, on the walls
—— rupestre, Clee hills
—— Telephium, var. *alpinum*. In habit this plant is nearly prostrate, slen-

der, and weak in all its parts. The leaves are also frequently opposite, thinner, and of a reddish green colour; it is also destitute of the leafy bracteal appendages which are present on Sedum Telephium. It was gathered by Mr. Cameron and myself on the Clee hills, in 1839, when we considered that its different appearance arose from growing at an elevation of from 14—15,000 feet above the level of the sea; it has however been cultivated in the Birmingham Botanic Garden, for two years, next to the true S. Telephium, without suffering the slightest change, and the difference between the two plants remains distinctly marked.

Saxifraga tridactylites and granulata, on the banks of the castle walk
—— hypnoides, on the stones of that part of the Clee hills called the Hoar edge, abundant
Chrysosplenium oppositifolium, abundant among the stones under the dripping rocks of Whitcliffe
Trifolium arvense, pratense and repens, banks of the castle walk
Medicago lupulina, walls of the Castle
Ulex europæus, Whitcliffe
Lotus corniculatus and major, ditto
Spartium Scoparium, Whitcliffe coppice
Vicia sylvatica, ditto
Euonymus europæus
Achillæa Millefolium
Apargia autumnalis and hirta
Sonchus oleraceus
Cirsium lanceolatum
Cnicus palustris
Leontodon Taraxacum
Tanacetum vulgare
Hieracium Pilosella and murorum
Carlina vulgaris
Pyrethrum Parthenium
Senecio Jacobæa
Petasites vulgaris
Conyza squarrosa
Eupatorium Cannabinum
Lapsana communis
Prenanthes muralis
Tussilago Farfara
Lappa glabra
Artemisia vulgaris
Erigeron acris
Campanula rotundifolia
Jasione montana, bank of the castle walk and Whitcliffe
Vaccinium Myrtillus, Whitcliffe coppice
Pyrola media, ditto
Glechoma hederacea
Ballota fœtida
Thymus Serpyllum
Galeopsis Tetrahit
Teucrium Scorodonia
Stachys sylvatica
—— Betonica, Whitcliffe coppice
Prunella vulgaris
Origanum vulgare, castle walk
Melissa Calamintha, banks of the castle walk, near Mortimer's tower
Primula veris and vulgaris
Lysimachia nemorum
Lathræa squamaria, near Steventon
Scrophularia nodosa and aquatica
Bartsia Odontites
Digitalis purpurea, Whitcliffe
Verbascum Thapsus, ditto
Veronica polita, Chamædrys and officinalis, banks of the castle walk
Linaria vulgaris, ditto
—— Cymbalaria, walls about the town
Melampyrum pratense, Whitcliffe coppice
Verbena officinalis, banks of castle walk
Myosotis palustris
Lithospermum officinale, abundant on the banks of the castle walk
Rumex Acetosa and sanguineus, var. with green veins, ditto
Polygonum Bistorta, Persicaria and Hydropiper
Parietaria officinalis, walls about Ludlow
Urtica dioica
Mercurialis perennis
Euphorbia amygdaloides and helioscopia, abundant in Whitcliffe coppice

Typha latifolia, Oakley park poul
Sparganium ramosum, banks of the Teme
Iris Pseudacorus, ditto, abundant
Epipactis latifolia, Whitcliffe, in great plenty, and very fine, some specimens being from 2 to 3 feet high
Spiranthes autumnalis, fields adjoining Ludlow
Listera ovata
Juncus conglomeratus, Whitcliffe coppice
Luzula pilosa, ditto
Butomus umbellatus, in the river between the new bridge and the Mill-street weir
Aira flexuosa
Milium effusum, Whitcliffe coppice
Holcus mollis, common
Bromus sterilis, walls about the castle, and castle ditch
Dicranum scoparium, Whitcliffe coppice
—— heteromallum & bryoides, moist bks.
Bryum ventricosum, rks. under Whitcliffe
—— capillare, rocks of castle walk
—— palustre
—— hornum, Whitcliffe coppice
—— pyriforme, walls about castle-walk
Hypnum stellatum, splendens, cuspidatum and purum, Whitcliffe
—— myosuroides, complanatum and denticulatum, Whitcliffe coppice
—— molluscum, on the stones among the ruins of the castle
—— triquetrum, Whitcliffe
Hypnum prælongum & confertum, banks
Bartramia pomiformis
—— fontana. This moss grows in great abundance among the wet rocks under Whitcliffe, where I found it in a beautiful state of fructification, which to me is of rare occurrence
Gymnostomum microstomum
Grimmia pulvinata, Titterstone
Orthotrichum crispum, upon the trees in Whitcliffe coppice, abundant
Polytrichum alpinum, undulatum and commune, Whitcliffe
Sphagnum obtusifolium and acutifolium, wet places near the river
Marchantia polymorpha
Jungermannia asplenioides
Borrera ciliaris, trees in Whitcliffe coppice
Cetraria glauca
Parmelia parietina
Peltidea canina
Scyphophorus pyxidatus
Cladonia rangiferina
Sphærophoron coralloides, Titterstone, on the stones
Lecanora Hæmatomma, Titterstone
Enteromorpha intestinalis, abundant in the river, below the bridge
Protonema Orthotrichi, on trees in Whitcliffe coppice, with Orthotrichum crispum
Boletus luteus
Agaricus pratensis, campestris & procerus

ART. CXXXIX.—*Notice of 'A Visit to the Australian Colonies. By JAMES BACKHOUSE.'* London: Hamilton, Adams, & Co. 1843.

(Continued from p. 553)

During his stay at the Hampshire hills, J. Backhouse made frequent excursions in the neighbouring country: in one of these he noticed Telopea truncata, or Van Diemen's Land tulip-tree, a laurel-like shrub bearing heads, four inches across, of brilliant, scarlet, wiry flowers; an upright Phebalium, with silvery leaves and small white flowers; and a white-flowered sorrel — Oxalis lactea; a Telopea, the flowers of which abound in honey, which our author found it easy to extract by means of the slender tubular stems of grass; and a shrubby Aster, with toothed leaves, so profusely loaded with pure white blossoms as to bend gracefully in all directions. We now quote a passage that will give some idea of the denseness of the forests in this island.

"On an old road called the Lopham-road, a few miles from the Bay, we measured some stringy-bark trees, taking their circumference at about 5 feet from the ground. One of these, which was rather hollow at the bottom, and broken at the top, was 49 feet round; another that was solid, and supposed to be 200 feet high, was 41 feet round; and a third, supposed to be 250 feet high, was 55½ feet round. As this tree spread much at the base, it would be nearly 70 feet in circumference at the surface of the ground. My companions spoke to each other, when at the opposite side of this tree to myself, and their voices sounded so distant that I concluded they had inadvertently left me, to see some other object, and immediately called to them. They, in answer, remarked the distant sound of my voice, and asked if I were behind the tree! When the road through this forest was forming, a man, who had only about 200 yards to go, from one company of the work-people to another, lost himself: he called, and was repeatedly answered; but getting further astray, his voice became more indistinct, till it ceased to be heard, and he perished. The largest trees do not always carry up their width in proportion to their height, but many that are mere spars are 200 feet high.

"The following measurement and enumeration of trees growing on two separate acres of ground in the Emu Bay forest, made by the late Henry Hellyer, the Surveyor to the V. D. Land Company, may give some idea of its density.

"FIRST ACRE.

500	Trees under		12 inches	in girth.
992	do.	...	1 to 2 feet	do.
716	do.	...	2 to 3 do.	do.
56	do.	...	3 to 6 do.	do.
20	do.	...	6 to 12 do.	do.
12	do.	...	12 to 21 do.	do.
4	do.	...	30 do.	do.
84	Tree Ferns.			
2,384	Total.			

SECOND ACRE.

704	Trees under		12 inches	in girth.
880	do.	...	1 to 2 feet	do.
148	do.	...	2 to 3 do.	do.
56	do.	...	3 to 6 do.	do.
32	do.	...	6 to 12 do.	do.
28	do.	...	12 to 21 do.	do.
8	do.	...	21 to 30 do.	do.
8	do.	...	30 feet and upwards.	
112	Tree Ferns.			
1,976	Total."—p. 115.			

The measurement of individual trees seems really enormous. We have a prostrate tree measuring 200 feet to the first branch; a second cut into rails each 180 feet long; a third *so large that it could not be cut into lengths for splitting*, and a shed had been erected against it, the tree serving for a back. The following dimensions are given of ten standing trees, which occurred within half a mile: their circumference was taken at four feet from the ground.

No. 1,—45 feet; No. 2,—37½; No. 3,—35; No. 4,—38; No. 5,—28; No. 6,—30; No. 7,—32; No. 8,—55; No. 9,—40½; No. 10,—48.

On the banks of the Emu river was a laurel-like shrub of great beauty, with clusters of white blossoms half an inch across (Anoptera glandulosus). In the same vicinity occur three edible plants; the first a fungus which grows on the myrtle, and is known in the colony by the name of "punk:" the second is also a fungus, produced in clusters from swollen portions of the branches of the same shrub, and varying in size from that of a nut to that of a walnut; its taste is like cold cow-heel: the third is "Gastrodium sesamoides, a plant of the orchis tribe, which is brown, leafless, and 1½ foot high, with dingy, whitish, tubular flowers. It grows amongst decaying vegetable matter, and has a root like a series of kidney potatoes, terminating in a branched thick mass of coral-like fibres. It is eaten by the Aborigines, and is sometimes called Native Potato, but the tubers are watery and insipid."

In returning over the island to Hobart Town, there appear to have been but few plants that attracted much notice. In the vicinity of this place a species of Conospermum, with narrow strap-shaped leaves and small flowers, was noticed. In October, 1833, the travellers ascended Mount Wellington.

> "At the base, sandstone and limestone form low hills; further up, compact argillaceous rock rises into higher hills, which abound in marine fossils. The height of the mountain is 4000 feet. Near the top, basalt shows itself in some places, in columnar cliffs. The trees, for two-thirds of its height, are stringy-bark, white and blue gum, peppermint, &c. A species of Eucalyptus, unknown in the lower part of the forest, is frequent at an elevation of 3000 feet. Another is found on the top of the mountain. The different species of Eucalyptus are very common, and form at least seven-eighths of the vast forests of Tasmania. In the middle region of the mountain, the climate and soil are humid. The Tasmanian myrtle—Fagus Cunninghamii, here forms trees of moderate size; the Australian pepper-tree,—Tasmania fragrans, is frequent; the broad-leaved grass-tree—Richea Dracophylla, forms a striking object; it is very abundant, and on an average, from ten to fifteen feet high; it is much branched, and has broad, grassy foliage. The branches are terminated by spike-like panicles of white flowers, intermingled with broad, bracteal leaves, tinged with pink. Culcitium salicifolium, Hakea lissosperma, Telopea truncata, Corræa ferruginea, Gaultheria hispida,

Prostanthera lasianthos, Friesia peduncularis, and many other shrubs, are met with in the middle region of the mountain. For a considerable part of the way up, we availed ourselves of a path that is nearly obliterated, which was used by the workmen, when laying a watercourse from the breast of the mountain, for the purpose of supplying Hobart Town with water. This path led through a forest of tree-ferns, surmounted by myrtle, &c. Nearer the top, we had to pass a large tract of tumbled basalt. The upper parts of many of the stones were split off, probably by the alternations of frost and heat. A few patches of snow were still remaining.

"The top of the mountain is rather hollow, sloping toward Birches Bay, in the direction of which, a stream of excellent water flows. The ground is swampy, with rocks and stony hills. Astelia alpina, Gleichenia alpina, Drosera arcturi, several remarkable shrubby Asters, a prostrate species of Leptospermum, Exocarpos humifusus, a dense bushy Richea, and several mountain shrubs, of the Epacris tribe, are scattered in the swamps, and among the rocks."—p. 159.

In the narrative of a second visit to Flinders Island, in December, we find a more detailed account of the grass-trees than any that has previously been given. Their stems are five to seven feet in height, and as many in circumference; the crest or summit consists of a number of grass-like leaves, three or four feet in length, and from the centre of these rises a single erect flower-spike, varying from five to ten feet in height: this is thickly clothed with hard scales, and small, white, star-like flowers, except for about eighteen inches, at the base, which is bare. The trunks of these grass-trees are charred with continual burnings of the scrub; and abundance of red resin, capable of being used in making sealing-wax and French polish, exudes from them: this resin fills the place left by the decay of the flower-stalk, and is abundant at the base of the stem, protecting this part from excess of moisture. The head of a grass-tree that has not thrown out a flower-stem is pleasant eating, and has a nutty flavour. Accompanying the description is a plate, representing these extraordinary plants.

In May, 1834, our travellers being at Hobart Town, visited a small settlement on the Derwent, called Brown's River, and noticed in their walk Sprengelia incarnata, a heath-like shrub, which was in flower in some marshy ground by the way: also Plagianthus discolor, one of the Malvaceæ, bearing clusters of white blossoms: the species of this genus are called Currijong, in common with others whose bark is sufficiently tenacious for making cordage.

Norfolk Island.—James Backhouse landed on Norfolk Island in the beginning of March, 1835: he thus describes it.

"Norfolk Island is about seven miles long and four broad. A small portion of its southern side is limestone; to the east of this there is a still smaller portion, of coarse, siliceous sandstone. The remainder of the island is basaltic, and rises into hills, covered with grass and forest. The highest hill is Mount Pitt, which is on the north side of the island, and about 1,200 feet above the level of the sea. The upper portions of the valleys, and the higher parts of the hills, are covered with wood. The Norfolk Island pine, Altingia excelsa, towers a hundred feet above the rest of the forest; it also grows in clumps, and singly, on the grassy parts of the island, to the very verge, where its roots are washed by the sea, in high tides. In figure, this tree resembles the Norway spruce, but the tiers of its branches are more distant. Its appearance is remarkably different, in its native soil, from what it is in the fine collection of trees at Kew; where it nevertheless exhibits many of its striking and beautiful features.—Where the wood of Norfolk Island merges into open grassy valley, a remarkable tree-fern, Alsophila excelsa, exhibits its rich crests among the surrounding verdure. The fronds are from seven to twelve feet long; they resemble those of Aspidium Filix-mas, and are produced in such a quantity, as to make this noble fern excel the princely palm-tree in beauty. It usually has its root near the course of some rain-stream, but as its trunk rises to fifty feet in height, and its top does not affect the shade, like many of its congeners, it forms a striking object in the landscape.

"Much of the land was formerly cultivated, but this is now overrun with the apple-fruited guava, and the lemon, which were introduced many years ago, when the island was settled, with a view to its becoming a granary to New South Wales. Grape vines, figs, and some other fruits, have also become naturalized. In the garden at Orange Vale, coffee, bananas, guavas, grapes, figs, olives, pomegranates, strawberries, loquats and melons, are cultivated successfully. Apples are also grown here, but they are poor and will not keep."—p. 251.

"One of the remarkable vegetable productions of this island is Freycinetia Baueriana, or the N. I. grass-tree. It belongs to the tribe of Pandaneæ, or screw pines. Its stem is marked by rings, where the old leaves have fallen off, and is an inch and a half in diameter; it lies on the ground, or climbs like ivy, or winds round the trunks of trees. The branches are crowned with crests of broad, sedge-like leaves. From the centre of these, arise clusters of three or four oblong, red, pulpy fruit, four inches in length, and as much in circumference. When the plant is in flower, the centre leaves are scarlet, giving a splendid appearance to the plant, which sometimes is seen twining round the trunk of the princely tree-fern. The New Zealand flax, Phorminm tenax, a large, handsome plant, with sedgy leaves, covers the steep declivities of many parts of this island, particularly at the tops of the cliffs of the coast. It is suffered to grow to waste, except a little that is converted into small nets and cordage, by the prisoners, for their own use. Two New Zealanders were once introduced, to teach the prisoners to prepare it; but their process was so tedious, that the scheme was abandoned."—p. 256.

On the 16th our traveller rode with Major Anderson to Anson's Bay, on the northern side of the island.

"The road was chiefly through thick forest, overrun with luxuriant climbers. Among them was a Wistaria, with pea-flowers, of purple and green, and leaves something like those of the Ash. It hangs in festoons of twenty or thirty feet, from the limbs of the trees that support it. One of the most beautiful climbers of the island is Ipomœa pendula, which has handsome fingered foliage, and flowers like those of the major convolvulus, but of a rosy pink, with a darker tube. The remains of two pines, which were noted for their magnitude, and were blown down in a storm, were lying by the side of the road. These were called 'The Sisters;' they were nearly two hundred feet in height."—p. 258.

The author informs us he frequently took a walk before breakfast, and explored the thickly wooded hills and valleys. On the borders of the woods there was a great variety of beautiful shrubs; among these is —

"The slender jasmine, Jasminum gracile, known in England as a delicate greenhouse plant. Here it climbs over the bushes, or with twisted stems, as thick as a man's wrist, reaches the branches of lofty trees, at fifty feet from the ground, and climbs in their heads. In these cases, it has probably grown up with the trees, the lower branches of which have progressively died away, and left the wreathed stems of the jasmine like ropes, hanging from the upper boughs. Scattered on the grassy hills is Hibiscus or Lagunea Patersonii, which forms a spreading tree of forty feet in height: it is called here the white oak: its leaves are of a whitish green, and its flowers pink, fading to white, the size of a wine-glass. It is perhaps the largest plant known to exist, belonging to the mallow tribe.* In a thick wood, I met with it eighty feet high, and with a trunk sixteen and a half feet round."—p. 258.

On the 28th of March James Backhouse, accompanied by the agricultural superintendant, walked to a stock-station, called Cheeses Gully, on the north side of the island. He here observed two remarkable arches of rock, one of them connecting the columnar basalt of the cliff with a little inaccessible' islet, inhabited by gannets and tropic birds. He noticed many of the old timber roads, grown up with the Cape gooseberry, Physalis edulis,—

"Which produces abundance of pleasant, small, round fruit, in a bladder-like calyx. This is eaten by the prisoners, who also collect and cook the berries of the black nightshade, Solanum nigrum. These berries are accounted virulently poisonous in England, but their character may possibly be changed by the warmer climate of Norfolk Island.

"In the woody gullies, the Norfolk-Island cabbage-tree, Areca sapida, abounds. It is a handsome palm, with a trunk about twenty feet in height, and from one and a half to two feet in circumference, green and smooth, with annular scars, left by the fallen leaves. The leaves or fronds form a princely crest, at the top of this elegant column; they are pectinate, or formed like a feather, and are sometimes nineteen feet in length; they vary from nine to fifteen in number. The apex of the trunk is enclosed in the sheathing bases of the leaf-stalks, along with the flower-buds, and young leaves. When the leaves fall they discover double compressed sheaths, pointed at the upper extremity, which split open indiscriminately, on the upper or under side, and fall off, leaving a branched spadix, or flower-stem, which is the colour of ivory, and attached by a broad base to the trunk. The flowers are produced upon this spadix: they are very small, and are succeeded by round seeds, red externally, but white, and

---

* Except the Baobab, Pl ytol. 433.—*Ed.*

> as hard as horn, internally. As the seeds advance towards maturity, the spadix becomes green. The young, unfolded leaves of this cabbage-tree, rise perpendicularly, in the centre of the crest. In this state, they are used for making brooms; those still unprotruded, and remaining enclosed within the sheaths of the older leaves, form a white mass, as thick as a man's arm; they are eaten raw, boiled or pickled. In a raw state, they taste like a nut, and boiled, they resemble artichoke-bottoms. The seeds furnish food for the wood-quest, a large species of pigeon, which has a bronzed head and breast, and is white underneath, and principally slate-coloured on the back and wings. This bird is so unconscious of danger, as to sit till taken by a noose at the end of a stick; when one is shot, another will sometimes remain on the same bough, till itself also is fired at. We measured a Norfolk Island pine, twenty-three feet, and another twenty-seven feet, in circumference. Some of them are nearly two hundred feet high. The timber is not of good quality, but is used in building; it soon perishes when exposed to the weather. This is said to be the case with all the other kinds of wood on the island. Norfolk Island iron-wood, Olea apetala, is the only other sort reputed to be worth using. No fences of wood are expected to stand above three years. Vegetation is rapid in this fine climate, but decay is rapid also. There are very few dead logs lying in the bush."—p. 264.

On the 2nd of April our traveller explored a gully on the north side of the island, and found it "shaded by forest and abounding in ferns and young palms;" he also observed four orchideous epiphytes on the upper branches of the trees. Peperomias and ferns were plentiful; the former "are spreading green plants allied to pepper;" they were growing on moist rocks, "on the dark sides of which Trichomanes Bauerianum, a membranaceous fern of great beauty, forms tufts exceeding a foot in height." On the rocks of the south coast he found Asplenium difforme, a fern resembling Asplenium marinum: a little way inland the leaves of this fern are more divided, and it varies through every intervening form, until, in the woods in the interior of the island, the leaves are separated into such narrow segments, that the fructification becomes marginal, and in this state the plant is called Cœnopteris odontites. On the 4th, after visiting a gang of invalids employed in stone-breaking, J. Backhouse explored a place called the Cascade, fringed in places with copses and straggling tree-ferns. A little brook winds from the woody hills to an open valley, formerly inhabited by settlers, whose chimneys were still standing, and whose orchards, now run wild, have spread grape-vines, lemons, figs and guavas all around.

> "Their sugar-canes have also become naturalized, and border the streamlet thickly, till it falls over a basaltic rock, about twenty feet high, decorated with ferns, and a variety of other plants. Here the brook is again narrowed by woody hills, and margined by luxuriant plants of the broad, sedgy-leafed New Zealand flax, and water-cress, till it emerges on an open, flat, basaltic promontory, from the very point of which it falls, about twenty feet, to the sea beach, where it is lost among the large, rounded,

tumbled stones. Among the sugar-cane and scrub at this point, a beautiful convolvulus-like plant, Ipomœa cataractæ, is entwined, and exhibits its large, purple flowers, shot with red. It was named from this place, by Bauer, a celebrated botanist, who accompanied one of the earliest navigators of these seas, and whose 'Flora of Norfolk Island' has lately been published by a person named Endlicher.

"Ipomœa carinata, a large plant of the Convolvulus tribe, having white flowers, with long tubes, that open at night, climbs among the trees in the borders of the woods. Among the bushes there are two pretty species of passion-flower, Disemma adiantifolia and D. Baueriana, with copper-coloured blossoms."—p. 268.

(To be continued).

ART. CXL.—*Rarer Plants found near Castle-Howard, Yorkshire.*

By H. IBBOTSON, Esq.

Thalictrum flavum. Banks of the Derwent and Areyholme beck.
Ranunculus Lingua. Bogs near Kirkham.
Trollius europœus. Terrington North Carr and in Holly-hill bogs.
Helleborus viridis. About Mowthorpe and Conesthorpe.
Aquilegia vulgaris. In most of the Castle-Howard Woods.
Actæa spicata. Kitscrew wood.
Berberis vulgaris. Hedges near Slingsby.
Corydalis claviculata. Bulmer Hagg.
Fumaria capreolata. In the park.
Nasturtium terrestre. Ponds near Bulmer and Terrington.
——— *amphibium.* Banks of the Derwent.
Arabis hirsuta. Fields at Baxtonholme, and on rocks in Mowthorpe dale.
Cardamine amara. Banks of the Derwent.
Thlaspi arvense. Mowthorpe fields.
Erysimum cheiranthoides. Fields near Terrington.
Viola palustris. Terrington Carr and Holly-hill bogs.
—— *hirta.* Gilla Leys wood.
Drosera longifolia. Slingsby moor.
——— *anglica.* Terrington carr, very ra.
Dianthus deltoides. In the Coom near Terrington.
Silene Otites. East Moors, now probably extinct.
Silene noctiflora. Cornfields, not unfreq.
Sagina apetala. Garden walks, Ganthorpe
Stellaria nemorum. Oxcar's wood.
——— *glauca.* Boggy ground near the Derwent.
Cerastium arvense. About Terrington and Conesthorpe.
Malva moschata. Fields at Mowthorpe.
Hypericum elodes. Slingsby moor.
——— *montanum.* Gilla Leys wood.
Geranium pyrenaicum. East moors, and near Conesthorpe.
Euonymus europæus. Kitscrew wood.
Rhamnus Frangula. Broat's plantation, near Ganthorpe.
Astragalus Hypoglottis. Welburn moor.
Vicia sylvatica. Frequent in the woods.
Cerasus Padus. Hedges at Ganthorpe.
Spiræa Filipendula. Welburn Moor.
Rubus suberectus. Potichar bank wood.
—— *corylifolius.* Ray-wood; Cross hill, Ganthorpe.
—— *Koëhleri.* Raywood; Ganthorpe Broats plantation.
—— ——— *β. fusco-ater.* Raywood.
—— *rudis.* Raywood.
—— *rhamnifolius.* Cross hill, Ganthorpe
Sanguisorba officinalis. Meadows, com.
Rosa spinosissima. Common.
—— *villosa.* Banks of the Derwent.
—— *canina β. sarmentacea.* Hedges near Baxtonholme &c.

Rosa arvensis. Ganthorpe moor.
Myriophyllum verticillatum. Pools and ditches near Crambeck.
Callitriche autumnalis. Terrington Carr.
Hippuris vulgaris. In the Derwent at Crambeck.
Peplis Portula. Ganthorpe Broats.
Bryonia dioica. Hedges at Welburn.
Sedum Telephium. Near Welburn.
—— *dasyphyllum.* Walls at Terrington
Saxifraga granulata. Pasture at Howthorpe.
Chrysosplenium alternifolium. Boggy ground near Dalby.
Sium latifolium. Bogs near Crambeck.
—— *angustifolium.* Terrington Carr.
Œnanthe Phellandrium. By the Derwent at Crambeck.
Torilis nodosa. Fields near Terrington and Conesthorpe.
Myrrhis odorata. Plentiful at Crambeck, Baxtonholme and Mowthorpe.
Fedia dentata. Conesthorpe fields.
Inula Helenium. Mowthorpe dale.
Bidens cernua. Ponds in the park.
Chrysanthemum segetum. Fields at Baxtonholme.
Antennaria dioica. Slingsby moor.
Cirsium eriophorum. Roughills plantation, near Ganthorpe.
Carlina vulgaris. Ganthorpe moor.
Serratula tinctoria. Fields near Ganthorpe and in Head Hagg wood.
Picris hieracioides. Mowthorpe dale.
Jasione montana. Terrington Broats.
Campanula glomerata. Meadows, freqnt.
Specularia hybrida. Fields near Hovingham and Conesthorpe.
Oxycoccos palustris. Terrington Carr.
Pyrola minor. In several of the Castle-Howard woods.
Villarsia nymphæoides. Lakes in the park.
Gentiana Pneumonanthe. Terrington Carr
Lithospermum officinale. Oxcar's wood and hedges near Welburn.
Verbascum Thapsus. Mowthorpe dale.
Linaria minor. Bulmer fields.
Rhinanthus major. Cornfields nr. Welburn
Veronica polita. Conesthorpe fields.
Lycopus europæus. By the Derwent at Crambeck.
Melissa Acinos. Fields at Baxtonholme.
—— *Calamintha.* Roadside between Hovingham and Slingsby.
Nepeta Cataria. Hedges near Fryton.
Lamium amplexicaule. Fields near Terrington.
Galeopsis Ladanum. Flds. nr. Hovingham
Verbena officinalis. About Ganthorpe and Welburn.
Utricularia vulgaris. Ditches nr. Crambeck
—— *minor.* Terrington Carr.
Hottonia palustris. Ditches nr. Crambeck
Lysimachia vulgaris. Banks of the Derwent
Polygonum Bistorta. Meadows near Ganthorpe
Daphne Laureola. Gatherley mills farm.
Orchis ustulata. St. Ann's meadow.
Gymnadenia conopsea. Meadows, not unfr.
Habenaria viridis. Welburn moor; Ganthorpe town's pasture.
—— *bifolia.* Cum Hagg wood, and other places.
Ophrys muscifera. Oxcar's wood.
Spiranthes autumnalis. Ganthorpe moor.
Listera cordata. Ganthorpe Broats plantation.
—— *Nidus-avis.* Cum Hagg wood, Thortle wood, &c.
Epipactis latifolia. Thortle wood.
—— *palustris.* Terrington N. Carr.
Paris quadrifolia. Woods, very common.
Convallaria majalis. Cum Hagg wood, Slingsby wood, &c.
Gagea lutea. Oxcar's wood.
Ornithogalum umbellatum. Terrington Broats.
Colchicum autumnale. St. Ann's meadow.
Sagittaria Sagittifolia. In the Derwent.
Butomus umbellatus. Ditto.
Lemna trisulca. Ditches near Crambeck.
—— *polyrhiza.* Castle-Howard ponds.
Isolepis fluitans. Terrington Carr.
Blysmus compressus. Welburn moor, rare.
Scirpus sylvaticus. By the Derwent near Crambeck.

Eleocharis acicularis. Margin of Castle-Howard lake.
——— *multicaulis.* Slingsby moor.
Rhynchospora alba. Ditto.
Carex curta. Terrington Carr.
—— *intermedia.* Ganthorpe Broats and Holly-hill bogs.
—— *muricata* Coom near Terrington; Park-field; Ganthorpe.
—— *divulsa.* Cum Hagg wood, very r.
—— *teretiuscula.* Terrington Carr.
—— *fulva.* Slingsby moor.
—— *binervis.* Terrington Carr.
—— *pilulifera.* Ganthorpe moor; Wath wood.
—— *filiformis.* Terrington Carr.
Alopecurus agrestis. Bulmer fields &c.
Kœleria cristata. Ganthorpe moor.
Poa rigida. In various localities.
Festuca bromoides. Coom near Terrington.
——— *loliacea.* St. Ann's meadow.
Bromus secalinus. Fields near Howthorpe and Bulmer.
——— *racemosus.* Fields near Welburn
——— *erectus.* In various localities.
Calamagrostis Epigejos Thortle wood.
——— *lanceolata.* Cum Hagg wd. Conesthorpe banks, &c.
Elymus europæus. Mowthorpe dale.
Hordeum pratense. Meadows near Ganthorpe and Mowthorpe.

Ganthorpe, near Whitwell,
Yorkshire, November 15, 1842.

H. Ibbotson.

Art. CXLI. — *Varieties.*

278. *Note on Adiantum Capillus-Veneris.* About sixteen years ago I found Adiantum Capillus-Veneris on the Clee hill, Titterstone. It was growing among the stones, on the ascent to the group of rocks called the Giant's Chair. I plucked a piece of it as a specimen, and placed it in my book, leaving the root. This specimen I kept by me for some time, but at last it was lost, and of the loss I took no notice, not doubting that the next time I visited the spot, I should again find the plant. However, I have hitherto been unsuccessful in my researches, but it would be well if some one would diligently search for it, and perhaps it may again be discovered.—*Fred. Westcott; Spring St., Edgbaston, December*, 1842.

279. *Note on Convallaria bifolia*, Linn., *as a reputed British Species.* In connexion with the notice of the recent discovery of this beautiful little plant in England (Phytol. 520), I beg to add that it is mentioned as indigenous in the woods at Hampstead, Middlesex, in the list of wild plants in the 'History of Hampstead' by Park, published, I believe, thirty or forty years ago: and in 1835 I detected several patches of the plant, apparently well established and really wild, under the shade of fir-trees, growing near the highest parts of Caen wood, the property of the Earl of Mansfield, between Hampstead and Highgate. A year or two before that time, I had also observed it under fir-trees in Aspley wood, Bedfordshire. The village

of Aspley is situate at the distance of a short walk from the town of Woburn: I have no means of ascertaining if specimens may still be obtained from thence. Convallaria majalis was plentiful all over Aspley wood, but past flowering when C. bifolia was found. This wood is one of the most picturesque and delightful that can be imagined. It was a favourite resort of the late amiable poet, Wiffen, when domiciled at Woburn Abbey; and many of the charming graphic descriptions of woodland scenery appearing in his works, may well be supposed to have been depicted from the originals of this delightful locality.—*Edward Edwards; Bexley Heath, Kent, March* 4, 1843.

280. *Note on the Surrey locality for Fritillaria Meleagris.* In the 'Naturalists' Almanack' for 1843, it is said that "this very beautiful and local plant flowers profusely in some meadows at Mortlake," (p. 9). This species, called by the country folk "snake's head," used to flower in *a* meadow at Mortlake, Surrey, known from that circumstance as "the Snake's-head Meadow," but of late years it has become very scarce, if not altogether eradicated by the ruthless hands of the village children, by whom the early showy plant was coveted as an ornament to their May garlands. The meadow is at the Thames side, beyond the brewhouses, and about midway between the village and Kew bridge. On visiting the spot at the proper time, during several seasons within the last five years, I was not able to obtain more than a single specimen. I am not aware of any other recorded station for the Fritillary in the immediate environs of the metropolis.—*Id.*

281. *Lithospermum purpureo-cæruleum.* "The purple gromwell, a local and very beautiful plant, found in Darenth wood, in Kent,"—(Nat. Alm. 11). To the best of my belief, this species does not *now* occur in Darenth wood. I cannot learn that any of my friends have detected it there during recent years; neither have I, after numerous diligent searches, been able to meet with it. I possess specimens from Babbicombe, Devon.—*Id.*

282. *Pæonia corallina.* "The peony, a plant now only found in some small islands of the Bristol Channel, and even in these it is becoming year after year less abundant, and will perhaps before long cease to exist in Britain in a state of nature,"—(Nat. Alm. 13). May I venture to enquire, through the medium of 'The Phytologist,' if the above statement can be verified by any reader of that useful periodical; and if it is within possibility to hope to obtain a specimen of so great a desideratum to our herbaria?—*Id.*

283. *Scilla autumnalis.* "There are several spots on Blackheath where it is abundant,"—(Nat. Alm. 19). Within recollection this plant

was tolerably plentiful on Blackheath, but I fear it is now well nigh lost in that locality. Certainly it has been far from abundant for many years, owing to the heath having become a well-trodden promenade, and the frequent resort of cricket-players &c., which formerly was not the case. I noticed the plant, in small quantity, near the clump of trees on the heath, near the highway to Eltham, a few autumns ago; last year not a single specimen appeared. I believe it may still be met with in abundance at the Warren, at Shorne in this county.—*Id.*

284. *Habitat for Tordylium officinale*, Linn. (Eng. Bot. 1st edit. t. 2440). I used to meet with a plant which I believe to have been this species, about Swanscombe, in bushy places between the church and the entrance to Swanscombe wood, in passing from the village to the wood. It was to be found there in 1839; not having visited the locality since that time, I cannot affirm that it yet exists there. This station for it is not given in any list of localities with which I am acquainted. The plant seems to be now erased from our Flora; it does not appear in the Edinburgh Society's Catalogue.—*Id.*

285. *Note on Dicranum adiantoides and taxifolium.* Allow me, through the medium of your valuable periodical, to offer a few remarks on Dicranum adiantoides and taxifolium. Since the commencement of the present season, my attention has been particularly directed to the consideration of these two mosses, and every observation tends to confirm my opinion that they are varieties of the same species, though their extreme forms are widely different. The nearly allied species, D. bryoides, is very variable in form and size. I have luxuriant specimens before me from one of our peat bogs, two inches high, which preserve their character of terminal fruit-stalks, and render that species truly distinct: but the characters of the *lateral* and *radicular* fruit-stalks of D. adiantoides and D. taxifolium are not always to be depended on as specific distinctions. A few days ago I gathered both growing within a yard of each other; D. taxifolium covered the bank with its beautiful green foliage, and D. adiantoides flourished on the stump of a tree, intermingled with several other mosses. Some specimens of the latter were very fine and characteristic, bearing several lateral fruit-stalks, while others were small, producing them also from the base. D. taxifolium occurred mostly with radicular footstalks, but I detected several producing them also laterally, which differed not materially from the smaller specimens of adiantoides. The character of flexuose fruit-stalks is not peculiar to any of the species, as I have observed it occasionally in all three. I hope these remarks may elicit further information on the subject from those who are more

competent to treat on it than myself.—*Joseph Sidebotham; Manchester, March* 6, 1843.

286. *Note on Vegetable Morphology.* I cannot see how the luxuriant growth of a stamen, causing it to produce a petaloid expansion at its upper extremity, in addition to those parts necessary for its peculiar functions, can be regarded as a proof of a descending metamorphosis, (Phytol. 523); by which I understand a dwindling away as it were of the vital energy of the plant, preventing the development of the elementary structures into the highest forms of which they are capable. This theory of a descending metamorphosis appears to me to be unphilosophical in the extreme, for surely, if we can trace the same type through a series of organs, the simplest and first developed of which can, if necessary, perform the collective functions of the whole, we cannot hesitate to take this simplest form as primary. I consider that the monstrosities we see in Dahlias &c. are caused, immediately, by an excess of nutriment afforded to the plant, which necessitates a great development of the organs of digestion and respiration, viz., the leaves: this, of course, diminishing the power of the plant to perfect its floral organs, and thus causing what may be termed an arrest of development, whereby stamens remain petals, &c. This does not explain the fact mentioned by Mr. Bladon; but if the anther *was* perfect, which he says it appeared to be, there is nothing very extraordinary in the production of a small petaloid expansion from the stamen, arising from a redundancy of vital action, when we consider how closely the two parts in question are allied.—*Arthur Henfrey, M. Mic. Soc., Curator to the Bot. Soc. Lond.; March* 8, 1843.

287. *Note on the "Daill llosg y Tân."* In answer to Mr. Lees' enquiry respecting the above plant (Phytol. 521), I have enclosed a few leaves and a young plant of the species known by that name in this part of Gwent,* and applied to the same purposes. As I have never examined the inflorescence of this plant I cannot give its name, but it is evidently monocotyledonous, and not a fern. In the summer the leaves are considerably larger, some of them being an inch or an inch and a quarter in breadth. They never rise above the water, but at that season lie incumbent on the surface. At the present time those with the longest stems lie horizontally, about half an inch below the surface, while the shorter-stemmed ones are as nearly upright as those of the generality of plants. Whether the circumstance of their sinking below the surface is owing to the late frosts or not, I am

---

* Gwent, the northern and western districts of Monmouthshire.

unable to say, but I had to break the ice to procure the specimens sent. The manner of using the leaves is to lay a number of them on the burn, and as they dry to replace them by fresh ones. A friend of mine, a native of Morganwg,* informs me that in that part the leaves are mixed up with lard, so as to form an ointment; he thought that the leaves known by the above Cambro-British name were very much larger than the size stated; perhaps some other species may be used by the Glamorganshire people for the same purpose, as the name only indicates the "leaf for a burn by fire."—*James Bladon; Pont-y-Pool, March* 8, 1843.

[The plant sent by our correspondent as the "Daill llosg y Tân" of Gwent, we believe to be the common pondweed,—Potamogeton natans.—*Ed.*]

288. *On the influence of Light in producing the Green Colour of Plants.* About Christmas, 1841, I was searching in a wood, chiefly oak, for some lichens to decorate the perches in a glazed case, intended for the reception of some ornithological specimens. I happened to turn over with my foot a piece of oak bark, about fifteen inches long: the side next the ground (the external part of the bark when *in situ*) was covered with lichens of the most vivid green, quite as bright as that of any leaves in early summer, not the pale colour of young shooting leaves, but of those arrived at mature growth. From the appearance of the grass under and on each side of the place where the bark had been, it had evidently lain there at least all the previous summer: yet I have never seen any lichens of the same or any other species, exposed to the full light of "day's garish eye," in the least approaching the vividness of the colour in the specimens alluded to above.—*Id.*

[The following passage relating to the Algæ, which are nearly allied to the Lichens, occurs in the Introduction to Harvey's 'Manual of British Algæ.' After mentioning the three principal varieties of colour among the Algæ, namely, grass-green, olivaceous-brown or olive-green, and red, the author states that the first of these colours is characteristic chiefly of such species as are "found in fresh water, or in very shallow parts of the sea, along the shores, and generally above half-tide level," the great mass of the green Algæ being inconsiderably submerged. "The olivaceous-brown or olive-green is almost entirely confined to marine species; * * the red also is almost exclusively marine, and reaches its maximum in deep water. * * How far below low-water mark the red species extend has not been ascertained, but those from the extreme depths of the sea are of the olive series in its darkest form. For the colours of these last it has puzzled botanists not a little to account. It is well known that *light* is absolutely necessary to the growth of land-plants, and that the green colour of their foliage altogether depends upon its supply: and if they be placed in even partial darkness, the green quickly acquires a sickly yellowish hue, and finally becomes whitish. But with Algæ it is different. At enormous depths, to which the luminous rays, it is known, do not penetrate, species exist as fully coloured as those along the shore. They therefore, in this respect, either differ from all other plants (Fungi included), or perhaps, what are called the *chemical* rays, in which seem to reside the most active principles of solar light, may be those which cause colour among vegetables, and these may penetrate to depths to which luminous rays do not reach. But this is mere supposition. Lamouroux suggests that 'the particles of light, or its elementary molecules, combined or mixed with the water,' suffice for this purpose. However this may be, it is worth remarking that this property among Algæ, of producing vigorous growth and strong colour without the agency of light, affords another link between them and the animal kingdom, among the lower tribes of which, light is by no means essential to growth and the most brilliant colour."—p. ix. This passage is interesting in itself, and in some measure applies to the subject of the preceding communication.—*Ed.*]

---

* Morganwg, the eastern part of Glamorganshire. The above names are sometimes applied in a more extended manner, indicating the whole of each county.

289. *Note on Viviparous Grasses.* It appears to me that some misapprehension exists with regard to what are called "viviparous" grasses. I have several times been deceived by the term, and should like to see the matter cleared up in the pages of 'The Phytologist.' In works of authority we are told that "in wet seasons the seeds of grasses frequently germinate before they fall from the husks, and that a crop of young plants at the summit of the parent stem is the consequence," or words to that effect. Now in the greater part, or all the cases of viviparous grasses which have come under my observation, the plants *have never flowered at all*, and of course *produced no seed.* How far, *en passant*, may this circumstance be considered as illustrating the morphological doctrine, that every flower is but a stunted branch? Festuca ovina, *β. vivipara*, growing in my garden, produces heads of young plants in the above manner every year, but never flowers at all. That such is the case with wild specimens of this and other species that are found viviparous, we are by no means led to suppose; in fact we are informed just the opposite. Do the seeds of pasture grasses *ever* germinate in the husk, like wheat, when it is said to "sprit"? The following are the grasses which I possess or have heard of as being occasionally viviparous.—Nardus stricta, Alopecurus pratensis, Agrostis vulgaris and alba, Aira cæspitosa and alpina, Glyceria fluitans, Poa alpina, Dactylis glomerata, Cynosurus cristatus, Festuca ovina and duriuscula, and ? Lolium perenne.—*Leo. H. Grindon; 32, Higher Temple St., Manchester, March* 13, 1843.

290. *Note on Polygonum Convolvulus.* We have a beautiful variety of Polygonum Convolvulus growing in many places about Manchester, *with winged fruit*, and so exceedingly luxuriant in growth

that it was mistaken for P. dumetorum by two or three botanists last autumn. But the wing shrivels so much in drying, that the error can only be made with recent specimens, and even then the roughness of the testa would of course remove all doubt as to the species.—*Id.*

[We were informed by the late Professor Don, that it was this winged variety of Polygonum Convolvulus which led to the insertion of P. dumetorum (under the name of Fagopyrum membranaceum, *Mœnch.*) in Gray's 'Natural Arrangement of British Plants,' previous to the discovery of the latter as an indigenous species.—*Ed.*]

291. *On the arrangement of a Herbarium.* In reply to the enquiry on the wrapper of the last No. of 'The Phytologist,' respecting the best method of arranging a herbarium, I beg to offer a description of the plan of my own, which is both compact, neat and easy of reference, and answers the end for which it was designed admirably well. In the first place I have six guard-books, made of *blue demy* paper, three quires in each, but this being rather too little, I would recommend three and a quarter: they must be at least 4½ inches wide in the binding. I have them labelled, "Herbarium Britannicum, No. 1, 2," &c. and also "Linnæan System," with the names of the classes contained in each volume. No. 1 has the first four classes; No. 2 has one—Pentandria; No. 3 the next seven; and No. 4, 5 and 6, four classes each. Dividing the system in this manner renders the contents of each volume as nearly equal as possible. At the beginning of each volume I have an index to the classes, orders and genera contained in it, referring to the same pasted on the corner of the left hand page, where each commences, one or more leaves being allotted to each genus. The whole is arranged after the fourth edition of Hooker's 'British Flora.' I have also one of Francis's lists of species, which is taken from the above work, cut up and pasted at the ends of the volumes. On this I mark off the species as I get them; so that by turning to the lists I can see at once both what each volume contains and what are desiderata. In the next place I have the specimens fastened down on half sheets of *printing demy*, with very narrow strips of blue paper; for this purpose I use common paste. When this is done, and the paste is dry, to prevent the attacks of insects, I lay on a little weak solution of corrosive sublimate in spirits of turpentine. In case of small species, such as Veronicas, violets, saxifrages, &c., I have more than one on the same half sheet, but still keep up the arrangement as above. These leaves are then put loose in their proper places between the leaves of blue paper, which adds greatly to the beauty of the whole. It may be thought that these books are very unwieldy, but they are in fact no more so than Gerard's Herbal, or any

other volume of a similar size. This might be remedied by dividing the system into smaller portions, and having a corresponding number of books, which would perhaps be an improvement; in this case I would allow a leaf to each species throughout.—*Samuel King; Lane House, Luddenden, near Halifax, March* 13, 1843.

[The above is the only communication we have received in reply to the enquiry on the wrapper of the March Phytologist, relative to the best method of arranging a herbarium. We are obliged to Mr. King for his kind attention, and in our next number hope to give further information.—*Ed.*]

292. *Note on the supposed new British Cerastium.* In the number for this month (Phytol. 497) Mr. Edmonston has endeavoured to show that the Cerastium latifolium of Linnæus was not known to British botanists as an indigenous plant, until discovered by himself in Shetland; the plants of Wales and the Highlands, hitherto so named by the botanists of this country, being only a variety of C. alpinum. This idea is backed by a reference to the opinion of Mr. C. C. Babington, whose botanical acuteness, and particular study of the genus Cerastium, combine to render his opinion on the subject deserving of attention. After reading the paper of Mr. E., I examined living plants of the Cerastium alpinum and latifolium (of British authors), gathered on Ben Lawers in 1841, and now in my garden; also numerous specimens in my herbarium, from Wales and the Highlands, from Faroe, Norway, Switzerland, and Arctic America; and likewise the descriptions of them by various botanical authorities. The conclusion arrived at is, first, that the differential characters assigned to the two species (of Linnæus) by Mr. Edmonston are quite untenable; and secondly, that the Shetland plant is in all likelihood a mere form or variety of the same species as the C. latifolium (of British authors) found on many of the Highland mountains. I consider the characters assigned to C. alpinum by Mr. Edmonston to be untenable, because they would exclude not only many of the Highland plants commonly called C. latifolium, but also various specimens of undoubted C. alpinum preserved in my herbarium; while, on the contrary, his characters of C. latifolium (of Linnæus) apply to some of my specimens of C. alpinum, quite as well as they apply to my Swiss specimens of C. latifolium. To go no farther than the leaves (which indeed afford Mr. E. the strongest contrast — upon paper), I find this year's shoots of the Ben Lawers plants, both C. alpinum and C. latifolium, bearing leaves equally short, broad, and obtuse, as the leaves in Mr. Edmonston's figure of his Shetland plant. In some of my dried specimens of C. alpinum I observe the leaves are obtuse, while in others they are acute;

and in a specimen of C. latifolium (of British authors), gathered on Ben Lawers, there are lanceolate, ovate, and almost orbicular leaves from the same root. In Koch's Synopsis, the same terms are applied to the leaves of both species, namely, "elliptic or lanceolate." It is consequently evident that Mr. E. was describing only particular forms of these plants, when he set down the leaves of C. alpinum as "ovate, or ovate-lanceolate, acute," and those of C. alpinum as being "orbicular, obtuse." Each species produces both these forms of leaves. The other contrasted characters given by Mr. E. appear to be as little constant as those taken from the leaves.—*Hewett C. Watson; Thames Ditton, March* 28, 1843.

293. *Localities of Orchis hircina*, Scop. *and O. macra*, Lindl. For the information of your correspondent, Mr. E. Edwards (Phytol. 555), I send the following. Orchis hircina, *Scop.*, in consequence of the rapacity of collectors, is nearly if not entirely eradicated from the neighbourhood of Dartford, Kent. It was to be found to a certainty near Puddledock and Stanhill, in Wilmington parish, about twenty or thirty years ago, in the hedge-rows; also at Trulling Down, in the road to Greenstreet Green. Sir James Edw. Smith, Sir Wm. Hooker, Mr. Borrer, the late Professor Don, Mr. George Don, Mr. Joseph Smith, Mr. Anderson of Chelsea, and myself, have gathered it in these stations, and I dare say it is still to be met with at or near some one of the above-mentioned places. Orchis macra, *Lindl.*, I have gathered at Stonewood, near Bean; at the entrance to Lullingstone castle, and in a copse near the farm-house at Mapplescombe, in Kingsdown parish; and I think it is likely to be met with now at the latter place, if diligent search be made for it.—*Wm. Peete; Keston Heath, April* 6, 1843.

294. *On the proposed change in the name of Equisetum limosum.* To alter a name which is *now* generally adopted by botanists, solely because a different name was applied to the same species of plant a century ago, would surely be an adherence to the letter rather than to the spirit of that useful rule which says that priority must decide the name. The rule itself is highly convenient to prevent confusion in nomenclature, but surely, it is better to disregard the rule in any particular case, where an adherence to it would actually create confusion. Moreover, in the present instance, it seems doubtful whether the rule really sanctions a change. I deem it highly probable that the two Linnæan names, E. limosum and E. fluviatile, belong to two forms (unbranched and branched) of the one species which Smith and hosts of other botanists have known under the former name. If so, the

name of its variety (E. fluviatile) should not be substituted for the name of the species, (E. limosum). As to the plant now universally called E. fluviatile by British botanists, the same objection would not lie against a change for an older name than that erroneously applied to it by Smith and others. The species which is now known in Britain as E. fluviatile, must have been confounded with E. arvense by Hudson and others; for it is too frequent to have remained unknown. The E. fluviatile of Hudson must be the branched form of E. limosum; E fluviatile of Smith is probably the variety β. of Hudson's E. arvense.—*Hewett C. Watson; Thames Ditton, April* 10, 1843.

295. *Places of growth of Equisetum fluviatile of Smith.* There is a partial inaccuracy in the statement that Equisetum fluviatile "affects loose gravelly and sandy places unconnected with water," (Phytol. 533). It occurs occasionally in corn-fields and other places out of water, but is always (as far as my observation goes) short and stunted in such situations. The finest examples that I have met with were in the counties of Chester and Lancaster, growing on the red marl, by the sides of streams or in water with a deep muddy bottom. Indeed, it is a notion among the rustics of Cheshire, that horses get "bogged" by their endeavours to graze on this plant in the muddy pools of that county; and I have certainly seen a horse almost over head in mud in a small pond filled with the tall "horse-tails," which is the name given more particularly to the barren fronds of the present species. I may add also that I met with one locality for the same species in the Azores, and was ankle-deep in mud before I could reach a frond of it.—*Id.*

296. *The supposed locality of Geranium nodosum near Halifax.* The communication of Mr. S. Gibson (Phytol. 556) is interesting and satisfactory, as tending to establish the accuracy of localities for rare plants which were published in the 'New Botanist's Guide,' on the authority of specimens derived through the hands of Mr. Bowman;—but it seems that we must make an exception to this, in the case of Geranium nodosum, the locality of which was printed "Waterham, near Halifax." Mr. Gibson corrects this, by saying that the species was "G. pyrenaicum," and the locality "Washerlane, near Halifax." Doubtless I misread the label, which, even now, looks to me more like the name that I printed, than the one now given by Mr. Gibson; but every one must be aware of the difficulty of reading unfamiliar names unless very distinctly written. In regard to the species, however, I can only affirm that my specimen is certainly not G. pyrenaicum; but that it belongs to a section of the genus which includes our indigenous G. pratense and G. sylvaticum, as also that doubtful na-

tive, G. nodosum. The specimen is merely the top part of a stem, with the immature fruit after the fall of the petals; and though I cannot speak confidently with only this "fragmentary specimen" before me, I think it G. nodosum. But the name on Mr. Gibson's label is "G. pyrenaicum," so that there is either a mistake respecting the species, on the part of Mr. Gibson, or, it may be, an accidental substitution of a garden specimen of G. nodosum in place of a wild specimen of G. pyrenaicum. The question still remains, whether the *specimen* in my herbarium (that of G. nodosum, probably, but certainly not of G. pyrenaicum) was really gathered wild near Halifax? On receiving the specimen I wrote to Mr. Bowman for further information, but that gentleman was not able to say more than the label stated.—*Id.*

297. *Note on "Dail llosg y Tân."* In a late number of your Journal (Phytol. 521) enquiry was made as to the precise species of fern used by the Welsh peasantry, as a remedy for burns, under the above name, as alluded to in the memoir appended to the prize elegy (or "Marwnad,") to the memory of the late Lady Greenly. The mention of this enquiry to my friend "Tegid," the talented author of the poem, has procured for me, at his instance, from Lady Hall of Llanover, (another great promoter of Welsh literature), accredited specimens of the plant, which, as you will see from the enclosed frond, gathered over "Ffynnon Ofer," proves to be the Scolopendrium vulgare of botanists. Lady Hall remarks that it is in "some parts of *South* Wales" where this simple is known as "Dail llosgi Tân:" in fact, my enquiries on the subject in some parts of North Wales, availed nothing at all.—*W. L. Beynon; Torquay, April* 22, 1843.

ART. CXLI.—*Proceedings of Societies.*

LINNEAN SOCIETY.

January 17, 1843.—Edward Forster, Esq., V.P., in the chair.

Wm. Taylor, Esq., F.L.S., exhibited specimens of the oil, oil-cake, and seeds, of Camelina sativa.

Francis G. P. Neison, Esq., Wm. Maddocks Bust, M.D., and Wm. Osborn, Esq., were elected Fellows of the Society.

Read, a paper "On the Ovulum of Santalum," by W. Griffith, Esq.

February 7.—Edward Forster, Esq., V.P., in the chair.

The Rev. W. Hincks, F.L.S., exhibited a specimen of Neottia gemmipara, recently found by Dr. Wood, of Cork, very near the original locality named by Mr. Drummond. The specimen exhibited was in a much more advanced state than the one preserved in Sir J. E. Smith's herbarium, and figured in 'English Botany.'

Edward Forbes, Esq., Professor of Botany at King's College, London, was elected a Fellow of the Society.

Read, the conclusion of Mr. Hassall's paper "On the Fresh-water Confervæ."

February 21.—Edward Forster, Esq., V.P., in the chair.

Dr. Frederick Blundstone White, of Tetbury, Gloucestershire, and Edward Doubleday, Esq., were elected Fellows of the Society.

Read, "Observations on the Portraits of Linnæus," by the Rev. F. W. Hope, F.L.S. in illustration of which paper Mr. Hope exhibited an extensive collection of engraved portraits.

March 7.--The Lord Bishop of Norwich, President, in the chair.

J. O. Westwood, Esq., F.L.S., exhibited a wax impression of a medal of Linnæus, issued by the Sheffield Horticultural Society.

Mr. Westwood presented specimens of the aërial processes of the roots of Sonneratia acida, sent by Mr. Templeton, from Ceylon. They are described by Mr. Templeton as affording a wood of extremely light and close texture, admirably adapted for lining insect-boxes, on account of the facility with which it admits the finest pins, and the tenacity with which they are retained.

Thos. Corbyn Janson, Esq., and Wm. Hammond Solly, Esq., were elected Fellows of the Society.

Read, a continuation of Mr. Griffith's paper "On the Ovulum of Santalum, Loranthus, Viscum, &c."

March 21. –The Lord Bishop of Norwich, President, in the chair.

M. P. Edgworth, Esq., F.L.S., presented specimens of nineteen species of ferns from the Himalayas, new to the Society's collection.

Capt. Jones, R.N., presented specimens of Calicium hyperellum and Placodium canescens.

Mr. Kippist presented specimens of Cæsalpinia coriaria, used by the natives of Carthagena for tanning leather.

Mr. Janson exhibited flowering plants of the "hungry rice" of Sierra Leone (Paspalum exile, Phytol. 558), raised from seeds collected by Robert Clarke, Esq.

Mr. Arthur Henfrey was elected an Associate of the Society.

Read, a continuation of Mr. Griffith's paper "On the Ovulum of Santalum, &c."

April 4.—Edward Forster, Esq., V.P., in the chair.

M. Nicholas Lund presented a collection of dried plants, gathered by him during a tour in Finmark in 1841-2.

Hugh Cuming, Esq., presented various fruits and seeds collected in the Philippine Islands and Malacca.

J. Parkinson, Esq., presented a specimen of the Ambigo orange from Pernambuco.

Robt. Heward, Esq., presented specimens of Sphæria Robertsii, parasitical on the larvæ of a species of Hepialus from New Holland, collected by the late Allan Cunningham, F.L.S.

George Sutton, Esq., was elected a Fellow of the Society.

Read, a continuation of Mr. Griffith's paper "On the Ovulum of Santalum, &c."

April 18.—The Lord Bishop of Norwich, President, in the chair.

Edward Forster, Esq., presented a section of an unusually large stem of ivy.

Robt. Armstrong, M.D., Nathaniel Buckley, Esq., Charles Pope, M.D., and Thos. White, M.D., were elected Fellows of the Society.

Read, the conclusion of Mr. Griffith's paper "On the Ovulum of Santalum, &c."

BOTANICAL SOCIETY OF EDINBURGH.

March 9, 1843.—Dr. Neill in the chair. Dr. Seller, F.R.C.P., was elected a resident member. Numerous donations to the library and herbarium were laid on the table.

The following papers were read:—

1. Remarks on the mode of growth of the British fruticose Rubi, &c. By Mr. Edwin Lees, F.L.S.
2. Continuation of Remarks on the Diatomaceæ. By Mr. John Ralfs, M.R.C.S.L.
3. On Fumaria micrantha and F. calycina. By Mr. C. C. Babington, M.A., F.L.S.
4. On two new species of Jungermannia; and another new to Britain. By Thomas Taylor, M.D. Communicated by Mr. Wm. Gourlie, jun., Glasgow.
5. Notice of the new fossil plant, Lyginodendron Landsburgii, *Gourlie.* By Mr. Wm. Gourlie, jun.

Mr. James Macnab exhibited a magnificent cluster of the male catkins of a palm, from one of the South Sea islands, which Lady Harvey had obtained from the captain of a vessel, and kindly allowed to be shown to the Society. Its dimensions, when expanded, were about three feet by three and a half, and it somewhat resembled an ornamental grate-screen, formed of shavings.

This being the anniversary of the Society's public institution, the members and others present adjourned, at the close of business, to the Café Royal, where they sat down to an elegant supper; Dr. Neill, the president, in the chair, supported by Sir William Jardine, Dr. Greville, Mr. Ball of Dublin, Mr. Gourlie of Glasgow, &c.—Professor Graham, croupier. After supper, the usual loyal and appropriate toasts were drank, and the proceedings were further enlivened by occasional songs.

April 13.—Professor Graham in the chair. Numerous donations to the library and herbarium were laid on the table. The attention of the Society was chiefly directed to a donation by William Brown, Esq., R.N., consisting of a miscellaneous collection of plants and fruits from Canton river and Chusan—from the Cape and Prince's Island, including forty species of Ericeæ from Simond's Bay and Table Mountain.

The following papers were read:—

1. Two botanical visits to the Reeky Linn and Den of Airley, in April and June, 1842. By Mr. Wm. Gardiner, Dundee.
2. On the Diatomaceæ: No. VI. By Mr. Ralfs, Penzance.

BOTANICAL SOCIETY OF LONDON.

April 21. Dr. W. H. Willshire, in the chair. Dr. Thomas Taylor, F.L.S., presented specimens of the following mosses.—*Trichostomum saxatile*, Taylor, MS. found near Dunkerron, Co. Kerry, Ireland, in 1841: and *Bryum recurvifolium*, Taylor, MS. found at Knockavolula, Co. Kerry, Ireland, 1842.

Mr. J. Reynolds, Treasurer, read the commencement of a paper, being "General Researches in the Physiology and Organogeny of Vegetables;" translated from a paper by M. Gaudichaud.—*G. E. D.*

MICROSCOPICAL SOCIETY OF LONDON.

April 19, 1843.—J. S. Bowerbank, Esq., in the chair.

Read, a paper by Arthur Hill Hassall, Esq., entitled, "Some further observations on the Decay of Fruit." The author refers to an opinion expressed by him in a former paper, that the well-known principle adopted by Liebig, that a body in the act of decomposition is capable of communicating the same to other bodies by a kind of induction, does not apply to the general form of decomposition occurring in fruit, principally from the circumstance of its attacking it in a highly vital condition, when it could not be supposed to be the subject of any spontaneous or chemical decomposition: and also to that of Dr. Lankester, expressed at a former meeting, that Liebig's views did not afford a sufficient explanation of every example of decay occurring in fruit, as he considered that an apple, once removed from the tree, was no longer in a vital state, but that it immediately became a prey to a species of fermentation. He then proceeded to express his doubts as to the accuracy of the last supposition, inasmuch as it is possible to preserve fruit, free from all visible deterioration, for many months after its removal from the tree. Still, admitting both these and Liebig's views to be correct, they do not, in his opinion, explain the reason why decay commences in a spot gradually extending itself over the surface of the fruit, and does not at once involve its entire substance and fabric. He therefore proceeded to show that these phenomena were to be referred to the operation of entophytal Fungi for a satisfactory solution, still admitting the existence of a second form of decomposition in fruit, this being comparatively of rare occurrence, and which appears to be the result of chemical affinities, in consequence of the fruit having ceased to exist, and to which the views of Liebig may in some cases, perhaps with propriety, be applied. He also stated that since the former meeting of the society he had repeated the experiment of inoculating fruit with the sporules of the Fungi, with the same success which attended the former trial, but that he had failed in inducing decay in sound fruit by the introduction of decayed matter destitute of Fungi in any state; still, however, he considered this might ensue in some cases in which the vitality of the fruit was either totally destroyed, or, at all events, much enfeebled; and even if an invariable consequence, still it would not in any way affect the statement made relative to the independent power possessed by Fungi in originating decay; and again, if these were proved not to do this, they would still be of as much importance in a practical point of view as ever; since, when inserted into fruit which is undergoing spontaneous decay, they produce marked and rapid effects, and speedily ensure its complete destruction. In conclusion, he stated that the apples employed in the experiments were of an exceedingly firm description, and that an equal number of each were inoculated with the sporules and with decayed matter.

Dr. Edward Jenner having again forwarded to the society some beautiful specimens of Fragilaria pectinalis and Diatoma flocculosum, and having had his attention directed to a report of the Proceedings of the Society, in which it was said that the specimens before sent were animalcules; — forwarded a paper in reply, wherein he states that the objects sent are considered by botanists to belong [illegible] Algæ. By Ehrenberg they are classed with his Infusoria and thought to be animalcules, as he supposes they increase by self-division; but this last fact is not sufficient to remove them from the vegetable kingdom, since many plants, such as the lily, crocus, &c., also increase their species by self-division. Three other genera, Achnanthes, Gomphonema and Cocconema, which are at present classed by botanists with plants, the author considers to be of a doubtful nature, thinking they may possibly be found to be Zoophytes. He also stated that the stomic cells mentioned by Ehrenberg, were the endochrome or colouring matter of the botanist, which, when ripened into sporidia, escapes through an opening in the frustule, being one of the methods by which the species are increased. The author also expressed his persuasion, that in the present imperfect state of our knowledge of these objects, great caution ought to be used in advancing any opinion respecting them.—*J. W.*